

Trade and Industrial Education
Course: Computer-Aided Design CAD
Course Code # 5789
2 Credits

School Year _____

Term: ___ Fall ___ Spring

Student:	Grade:
Teacher:	School:
Number of Competencies in Course: 15	
Number of Competencies Mastered:	
Percent of Competencies Mastered:	

STANDARD 1.0: Students will create and print two- and three-dimensional scale drawings and orthographic projections using a CAD program.

Learning Expectations		Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
1.1	Create and print two-dimensional scale plan drawings.			
1.2	Create and print orthographic projections of three-dimensional objects.			
1.3	Create and print drawings of three-dimensional objects including parallel extrusion, perspective extrusion, and three-dimensional isometrics.			
1.4	Create and print engineering drawings of complex objects requiring multiple sectional views.			

STANDARD 2.0: Students will apply dimensions and tolerances to components of a technical drawing to assure a working fit between components.

Learning Expectations		Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
2.1	Determine the appropriate tolerances for each dimension in a drawing, including assembly, operational, and cost criteria for structures and mechanisms.			
2.2	Include global tolerances in the drawing title block when appropriate.			
2.3	Include explicit tolerances on a drawing's dimensions when appropriate.			

STANDARD 3.0: Students will extract information from a technical drawing to create a bill of materials.

Learning Expectations		Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
3.1	Identify the available form(s) of each raw material required for the assembly and make defensible recommendations.			
3.2	Make a list of each type of raw material with all required specifications for an assembly.			
3.3	Make a list and specifications for finished-goods components required of an assembly.			
3.4	Identify allowable alternates or substitutions (if any) on the bill of materials.			

STANDARD 4.0: Students will demonstrate leadership, citizenship, and teamwork skills required for success in the school, community, and workplace.

Learning Expectations		Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
4.1	Demonstrates dignity in work.			
4.2	Participate in SkillsUSA-VICA as an integral part of classroom instruction.			
4.3	Evaluate school, community, and workplace situations by applying problem-solving and decision-making skills.			
4.4	Demonstrate the ability to work professionally with others.			

Additional Comments _____